



TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>		Application Number	10/791,633
		Filing Date	March 1, 2004
		First Named Inventor	Roth, Richard
		Art Unit	Not yet known
		Examiner Name	Not yet known
Total Number of Pages in This Submission		Attorney Docket Number	019930-002510US

ENCLOSURES (Check all that apply)		
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Firm or Individual	Townsend and Townsend and Crew LLP Patrick M. Boucher Reg. No. 44,037
Signature	
Date	April 26, 2004

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Typed or printed name	Nicole M. Wartell		
Signature		Date	April 26, 2004



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PATENT
Attorney Docket No.: 019930-002510US
Client Reference No.: A1294C1

On APRIL 26, 2004

TOWNSEND and TOWNSEND and CREW LLP

By: 

Nicole M. Wartell

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Bevan Staple et al.

Application No.: 10/791,633

Filed: 03/01/2004

For: MEMS-BASED
NONCONTACTING FREE-SPACE
OPTICAL SWITCH

Examiner: Not yet known

Art Unit: Not yet known

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR §1.97 and
§1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

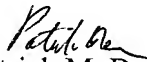
The references cited on the attached form are being called to the attention of the Examiner. This application is a continuation application of and relies on U.S. Appl. No. 09/899,002 filed July 3, 2001 (the "parent application", which has issued as US-6,701,037 B2) for an effective filing date under 35 U.S.C. § 120. All of the references were submitted to the U.S. Patent and Trademark Office in the parent application. Therefore, pursuant to 37 CFR § 1.98(d), copies of the references are not enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references

be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,


Patrick M. Boucher
Reg. No. 44,037

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60155464 v1



Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet **1** of **3****Complete if Known**

Application Number	10/791,633
Filing Date	03/01/2004
First Named Inventor	Maalouf, Khalil J.
Art Unit	Not yet known
Examiner Name	Not yet known
Attorney Docket Number	019930-002510US

U.S. PATENT DOCUMENTS+

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
	A1	US-5,212,582	05-18-1993	Nelson	
	A2	US-5,414,540	05-09-1995	Patel et al.	
	A3	US-5,600,383	02-04-1997	Hornbeck	
	A4	US-5,917,625	06-29-1999	Ogusu et al.	
	A5	US-5,960,133	09-28-1999	Tomlinson	
	A6	US-5,969,848	10-19-1999	Lee et al.	
	A7	US-5,999,672	12-07-1999	Hunter et al.	
	A8	US-6,028,689	02-22-2000	Michalick et al.	
	A9	US-6,040,935	03-21-2000	Michalick	
	A10	US-6,097,519	08-01-2000	Ford	
	A11	US-6,097,859	08-01-2000	Solgaard	
	A12	US-6,108,471	08-22-2000	Zhang et al.	
	A13	US-6,128,122	10-03-2000	Drake et al.	
	A14	US-6,307,657 B1	10-23-2001	Ford	
	A15	US-2002/0135850	09-26-2002	Hagelin et al.	
	A16	US-6,480,320 B2	11-12-2002	Nasiri	
	A17	US-6,501,877	12-31-2002	Weverka, et al.	
	A18	US-6,541,831	04-01-2003	Lee et al.	
	A19	US-6,597,048	07-22-2003	Kan	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
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60155464 v1

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	10/791,633	
			Filing Date	03/01/2004	
			First Named Inventor	Maalouf, Khalil J.	
			Art Unit	Not yet known	
			Examiner Name	Not yet known	
Sheet	2	of	3	Attorney Docket Number	019930-002510US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	C1	Akiyama, T. et al.; "Controlled Stepwise Motion in Polysilicon Microstructures," Journal of Microelectromechanical Systems, Vol. 2, No. 3, September 1993; pp.106-110	
	C2	Andrew, et al., "Electrostatic Model for an Asymmetric Combedrive," Journal of Microelectromechanical Systems, Vol. 9, No. 1, March 2000, pp. 126-135	
	C3	Ashruf, C.M.A. et al., "Galvanic porous silicon formation without external contacts," Sensors and Actuators 74 (1999) pp. 118-122	
	C4	Bean, Kenneth et al., "Anisotropic Etching of Silicon," IEEE Transactions on Electron Devices, Vol. Ed-25, No. 10, October 1978	
	C5	Ciarlo, Dino R. "A latching accelerometer fabricated by the anisotropic etching of (110) oriented silicon wafers," Lawrence Livermore Nat'l Laboratory, March 1, 1992	
	C6	Dewa, A.S. et al., "Development of a Silicon Two-Axis Micromirror for an Optical CrossConnect," Solid State Sensors and Actuators Workshop, Hilton Head, South Carolina, pp. 93-96	
	C7	Ford, Joseph et al., "Wavelength Add Drop Switching Using Tilting Micromirrors," Journal of Lightwave Technology, Vol. 17, No. 5, May 1999	
	C8	Grade, J. et al., "A Large-Deflection Electrostatic Actuator for Optical Switching Applications, Solid-State Sensor and Actuator Workshop, Hilton Head Island, South Carolina, June 4-8, 2000; pp. 97-100	
	C9	Kaajakari, V. et al.; "Ultrasonic Actuation for MEMS Dormancy-Related Stiction Reduction," In MEMS Reliability for Critical Applications, Proceedings of SAPIE Vol. 4180 (2000); pp. 60-65	
	C10	Keller, C. Dissertation entitled: Microfabricated Silicon High Aspect Ratio Flexures for In-Plane Motion; Fall 1998	
	C11	Koch, T.L. et al., "Anisotropically etched deep gratings for InP/InGaAsP optical devices," J.App. Phys. 62 (8), 15 October 1987	
	C12	Muller, L. Dissertation entitled: Gimballed Electrostatic Microactuators with Embedded Interconnects; Spring 2000	
	C13	Nishi, I. et al., "Broad-Passband-Width Optical Filter for Multi-Demultiplexer Using a Diffraction Grating and a Retroreflector Prism," Electronics Letters, Vol. 21, No. 10, 9 th May 1985	
	C14	Phillippe, P. et al., "Wavelength demultiplexer: using echelette gratings on silicon substrate," Applied Optics, Vol. 24, No. 7, 1 April 1985	
	C15	Rallison, R.D. "Dense Wavelength Division Multiplexing (DWDM) and the Dickson Grating" White Paper, Jan 6, 2001.	
	C16	Schilling, M. et al., "Deformation-free overgrowth of reactive ion beam etched submicron structures in InP by liquid phase epitaxy," Appl. Phys. Lett. 49 (12), 22 September 1986	

Examiner Signature		Date Considered	
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* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

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			Application Number	10/791,633	
			Filing Date	03/01/2004	
			First Named Inventor	Maalouf, Khalil J.	
			Art Unit	Not yet known	
			Examiner Name	Not yet known	
Sheet	3	of	3	Attorney Docket Number	019930-002510US

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Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	C17	Sun, Z.J. et al., Demultiplexer with 120 channels and 0.29-nm Channel Spacing," IEEE Photonics Technology Letters, Vol. 10, No. 1, January 1998	
	C18	Tang, W. et al., "Electrostatically Balanced Comb Drive for Controlled Levitation," Reprinted from Technical Digest IEEE Solid-State Sensor and Actuator Workshop, June 1990; pp. 198-202	
	C19	Torcheux, L. et al., "Electrochemical Coupling Effects on the Corrosion of Silicon Samples in HF Solutions," J. Electrochem.Soc., Vol. 142, No. 6, June 1995	
	C20	VanKessel, P. et al., "A MEMS-Based Projection Display," Proceedings of the IEEE, Vol. 86, No. 8, August 1998; pp. 1687-1704	

Examiner Signature		Date Considered	
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